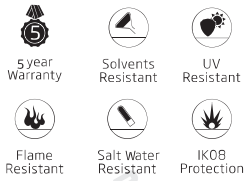


# Flexglo™ F22DT - Three-side Emitting Dynamic Light (Silicone)



Certification Mark				
Test Standard/Directive	UL2108 Class 2	UL2108 Non Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E360029	20180312-E360029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	E360029-20180309	SZEM171201237201	NO.20190425001

2200K~5700K

Ambient Working Temperature  
12W/m -40~55°C /-40~131°F

Ambient Installation Temperature  
≥ -40°C /-40°F

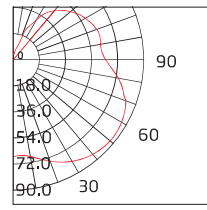
Storage Temperature  
-40 ~ 60°C /-40~140°F

Max. Mounting Surface Temperature  
85°C /185°F

Constant Current  
DC24V

## C-SFR-F22DT-VB

C-SFR-F22DT-VB-24CV-22K~57K-WM-144-12W-83.3

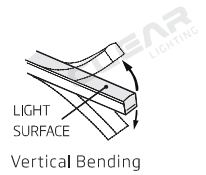
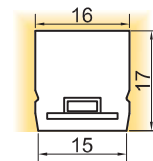


UNIT: cd  
-C90/270

AVERAGE BEAM ANGLE (50%): 272.0°

Min. Bending Diameter  
300mm/11.81in

Min. Cutting Length  
83.3mm/3.28in, 12LEDs



Note:

1. The illuminated light length shall be an integral multiple of min. cutting length.
2. The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

## Item Code

C	SFR	F22DT	VB	24CV	22-57K	WM	144	12W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	Power/m	Min. Cutting Length (mm)
Clear	SFR= (Silicone) Flex Ribbon	F22DT= Dynamic Three-side Emitting	VB= Vertical Bending	DC24V & Constant Voltage	22K~57K= 2200K~5700K	WM= White & Milky	144	12W	83.3

## Feature

Flexglo™ F22DT Three-side Emitting Dynamic Light (Silicone) is tunable from 2200K to 5700K, setting the harmonious tone for the surrounding space. Thanks to the excellent weatherproof and UV-resistant performance of silicone material, it features a wide ambient working temperature range of -40-55°C, especially suitable for harsh environment application.

Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,

\*The IP68 Silicone Injection-moulded Connector is engineered for outdoor use, owing to its elegant appearance and strong adhesiveness acquired by the liquid silicone injection workmanship.

\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).

This product has an ultra-long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™ technology enhancing physical reliability of light engine, the TwinFlex™ technology improving the conductivity and optimizing heat dissipation performance, the C-Mask™ technology making the light body self-cleaning and anti-UV and enabling consistent illumination.

## Electrical Parameter

Category	C-SFR-F22DT-VB
Voltage (V)	24
Current (mA/m)	500
Power (W/m)	12
Circuit Type	CV
LED Type	3015
LEDs Qty/m	144
LEDs Qty/unit	12
Unit/m	12
Min. Cutting Length (mm)	83.3
Min. Cutting Length (in)	3.28

## Optical Parameter

Item Code	Finished Product				LED
	Color	Wavelength	Lumen/m	Lumen/ft	Color Tolerance
C-SFR-F22DT-VB-24CV-22-57K-WM-144-12W-83,3	2200~5700K	2238±102K	350lm	107lm	<2,3nm
		5669±355K	400lm	122lm	<2,3nm

## Max. Running Length Input: DC24V













	Snap Connector		Silicone Injection-moulded Connector	
Type	IP67		IP68	
IP Rating	IP67		IP68	
Item Code	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed
C-SFR-F22DT-12W	15m/49,2ft	30m/98,4ft	15m/49,2ft	30m/98,4ft

Note:

- Above conclusion is based on voltage drop testing result of the light with 0,3m (0.98ft) cable only.
- The maximum running length is based on the light in static full loading status.
- Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector.
- The delivery length might be subject to the maximum packing length.

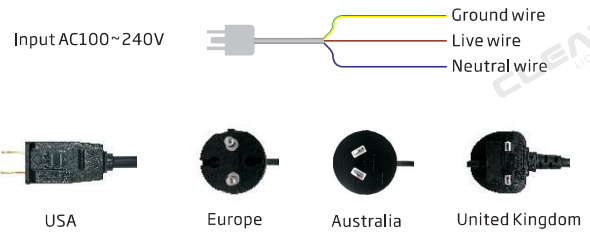


# F22 Mounting Profile

Picture	Name/Item Code	Installation Way
	<p>Aluminum Profile F22-A/PL-35/500/1000/2000mm</p>	
	<p>Flange Aluminum Profile F22-FA/PL-35/500/1000/2000mm</p>	
	<p>Self-clinching Aluminum Profile F22-SCA/PL-20/500/1000/2000MM</p>	
	<p>Serrated Aluminum Profile F22-SA/PL-20/500/1000/2000mm</p>	
	<p>Flange Serrated Aluminum Profile F22-FSA/PL-20/500/1000/2000mm</p>	
	<p>Bendable Serrated Aluminum Profile F22-BSA/PL 500/1000mm Note: only horizontal bending is available</p>	

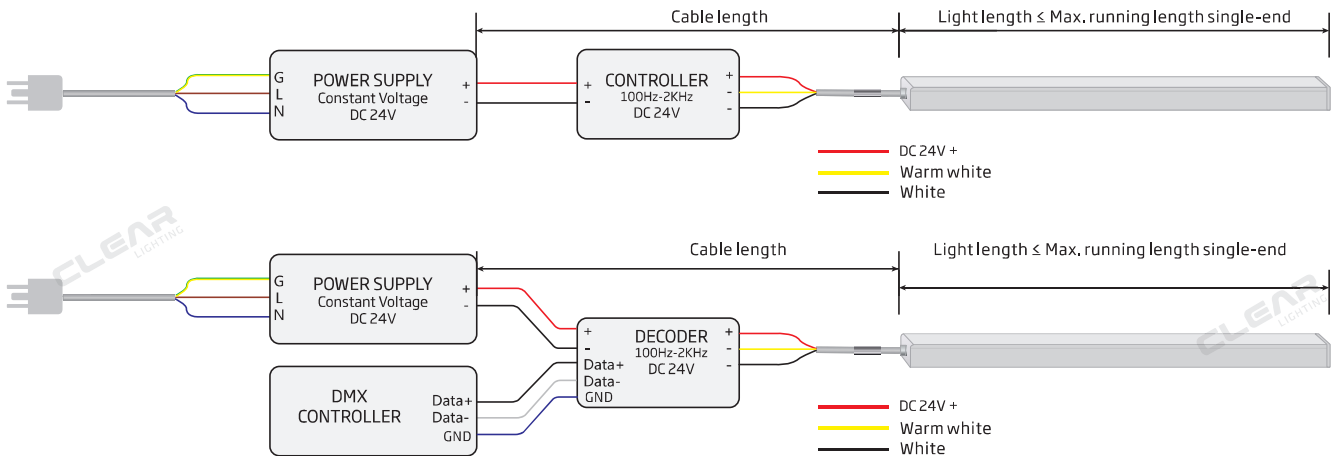
# Flexglo™ F22D Wiring Diagram

1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;
2. A compatible controller is required to achieve various light changing effects;
3. The rated power of controller/decoder shall be higher than the actual power consumption of light; its frequency range shall be 100~2000Hz, and 500Hz is recommended;
4. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity;



5. Types of standard plugs are optional if power cord is purchased from CLEAR.

## Single-end Feed



### Light Length:

The length of the longest single light in parallel connection or sum of lights in series connection.

### Cable Length:

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

## How to Minimize Voltage Drop and Signal Transmission Attenuation

1. Please ensure the cable length is not more than the table "Max. Cable Length" according to light length and its wire gauge.
2. Please ensure the light length is less than the cable "Max. Running Length Single-end Feed".
3. Shielded Twisted Pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

## Max. Running Length Single-end Feed

Input: DC24V

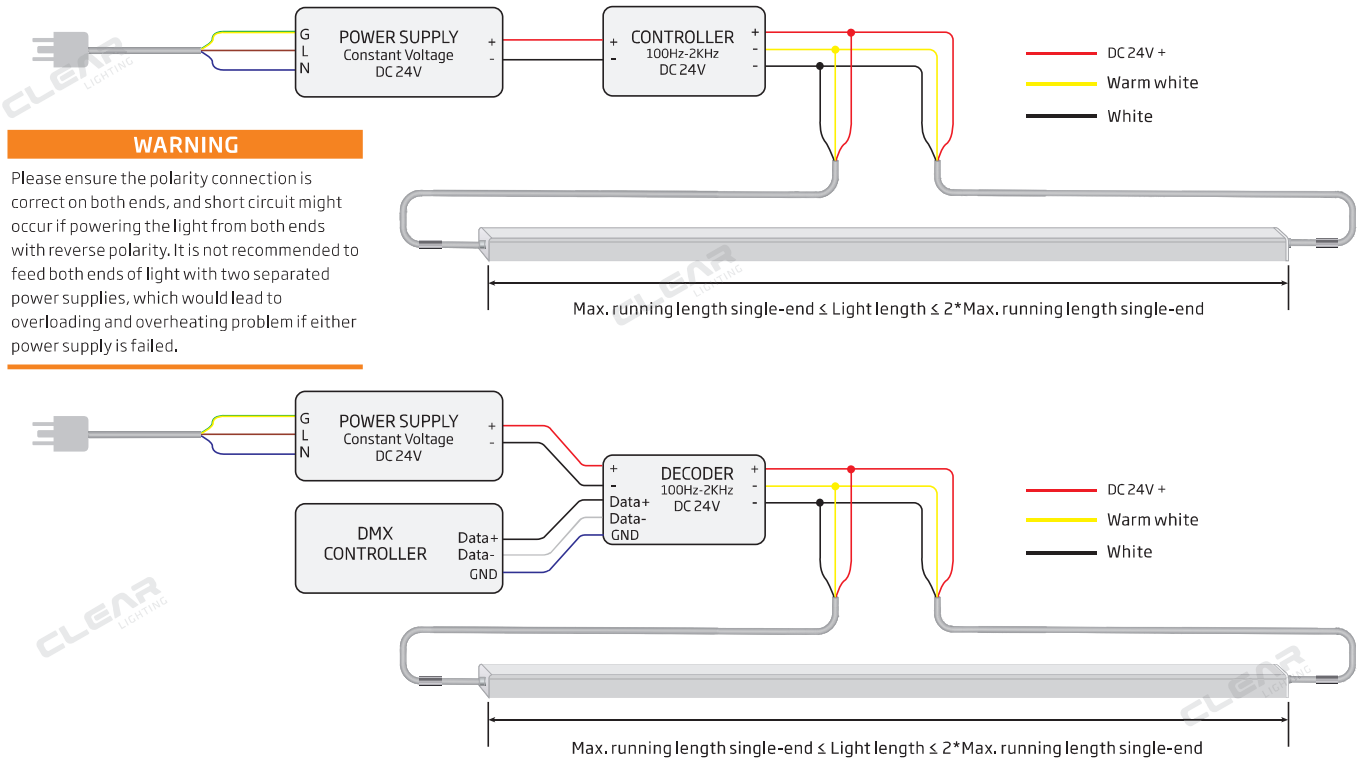
Connector Type	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	18AWG*3	18AWG*3	18AWG*3	18AWG*3
C-FR-F22D-12W-Static full loading	10m/32.8ft(HB)	10m/32.8ft	10m/32.8ft	10m/32.8ft
C-FR-F22D-12W-Dynamic operating	20m/65.6ft(HB)	20m/65.6ft	20m/65.6ft	20m/65.6ft
C-FR-ProfF22D-12W-Static full loading	10m/32.8ft(HB)	10m/32.8ft	10m/32.8ft	10m/32.8ft
C-FR-ProfF22D-12W-Dynamic operating	20m/65.6ft(HB)	20m/65.6ft	20m/65.6ft	20m/65.6ft
C-SFR-F22D-12W-Static full loading	15m/49.2ft(HB)	15m/49.2ft	15m/49.2ft	/
C-SFR-F22D-12W-Dynamic operating	30m/98.4ft(HB)	30m/98.4ft	30m/98.4ft	/
C-SFR-ProfF22D-12W-Static full loading	15m/49.2ft(HB)	15m/49.2ft	15m/49.2ft	/
C-SFR-ProfF22D-12W-Dynamic operating	30m/98.4ft(HB)	30m/98.4ft	30m/98.4ft	/

Note:

1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
2. The maximum running length is based on the light in static full loading status exceptionally stated dynamic operating.
3. Above running length is only the light length excluding lengths of connectors.
4. The delivery length might be subject to the maximum packing length.

## Double-end Feed

Please refer to the following wiring diagram with double-end feed to run length that is longer than max. running length for single-end feed but less than twice the value.



### WARNING

Please ensure the polarity connection is correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.

### Light Length:

The length of the longest single light in parallel connection or sum of lights in series connection.

### Cable Length:

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

### How to Minimize Voltage Drop and Signal Transmission Attenuation

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for double-end feed.
2. Please ensure the cable length is not more than the table "Max. Cable Length" according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table "Max. Running Length Double-end Feed".
4. Shielded Twisted Pair cable is required to be used to connect DMX master controller and decoder, and its length shall be less than 300m.

## Max. Running Length Double-end Feed

Input: DC24V

Connector Type	Snap Connector	Snap Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	18AWG*3	18AWG*3	18AWG*3	18AWG*3
C-FR-F22D-12W-Static full loading	20m/65.6ft(HB)	20m/65.6ft	20m/65.6ft	20m/65.6ft
C-FR-F22D-12W-Dynamic operating	40m/131.2ft(HB)	40m/131.2ft	40m/131.2ft	40m/131.2ft
C-FR-ProF22D-12W-Static full loading	20m/65.6ft(HB)	20m/65.6ft	20m/65.6ft	20m/65.6ft
C-FR-ProF22D-12W-Dynamic operating	40m/131.2ft(HB)	40m/131.2ft	40m/131.2ft	40m/131.2ft
C-SFR-F22D-12W-Static full loading	30m/98.4ft(HB)	30m/98.4ft	30m/98.4ft	/
C-SFR-F22D-12W-Dynamic operating	60m/196.8ft(HB)	60m/196.8ft	60m/196.8ft	/
C-SFR-ProF22D-12W-Static full loading	30m/98.4ft(HB)	30m/98.4ft	30m/98.4ft	/
C-SFR-ProF22D-12W-Dynamic operating	60m/196.8ft(HB)	60m/196.8ft	60m/196.8ft	/

Note:

1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
2. The maximum running length is based on the light in static full loading status exceptionally stated dynamic operating.
3. Above running length is only the light length excluding lengths of connectors.
4. The delivery length might be subject to the maximum packing length.

## F22D Max. Cable Length (PVC)

Input: DC24V

Item Code	Light Length (m)	Cable Length									
		0.32 mm <sup>2</sup>		0.52 mm <sup>2</sup>		0.81 mm <sup>2</sup>		1.32 mm <sup>2</sup>		2.07 mm <sup>2</sup>	
		22AWG		20AWG		18AWG		16AWG		14AWG	
		m	ft	m	ft	m	ft	m	ft	m	ft
C-FR-F22D-12W C-FR-ProF22D-12W	1	57.0	187.0	92.6	303.9	144.3	473.4	235.1	771.4	368.7	1209.7
	2	28.5	93.5	46.3	151.9	72.1	236.7	117.6	385.7	184.4	604.9
	3	18.3	60.2	29.8	97.8	46.4	152.3	75.6	248.2	118.6	389.2
	4	12.5	41.1	20.4	66.8	31.7	104.1	51.7	169.7	81.1	266.0
	5	9.1	30.0	14.9	48.7	23.1	75.9	37.7	123.7	59.1	194.0
	6	7.0	22.9	11.3	37.2	17.7	57.9	28.8	94.4	45.1	148.1
	7	5.4	17.8	8.8	29.0	13.8	45.1	22.4	73.6	35.2	115.4
	8			6.8	22.4	10.6	34.9	17.4	56.9	27.2	89.3
	9			4.8	15.8	7.5	24.6	12.2	40.1	19.2	62.8
	10			3.1	10.3	4.9	16.0	7.9	26.0	12.4	40.8

## F22D Max. Cable Length (Silicone)

Input: DC24V

Item Code	Light Length (m)	Cable Length									
		0.32 mm <sup>2</sup>		0.52 mm <sup>2</sup>		0.81 mm <sup>2</sup>		1.32 mm <sup>2</sup>		2.07 mm <sup>2</sup>	
		22AWG		20AWG		18AWG		16AWG		14AWG	
		m	ft	m	ft	m	ft	m	ft	m	ft
C-SFR-F22D-12W C-SFR-ProF22D-12W	1	55.8	183.1	90.7	297.6	141.3	463.5	230.2	755.4	361.0	1184.5
	2	28.2	92.5	45.8	150.3	71.4	234.2	116.3	381.7	182.4	598.5
	3	18.9	61.9	30.7	100.6	47.8	156.7	77.8	255.3	122.0	400.4
	4	13.5	44.3	22.0	72.0	34.2	112.2	55.7	182.9	87.4	286.8
	5	10.4	34.1	16.9	55.5	26.3	86.4	42.9	140.8	67.3	220.8
	6	8.3	27.4	13.6	44.5	21.1	69.3	34.4	112.9	54.0	177.0
	7			11.1	36.5	17.3	56.9	28.2	92.7	44.3	145.3
	8			9.3	30.6	14.5	47.6	23.6	77.6	37.1	121.7
	9			7.9	26.0	12.3	40.5	20.1	66.0	31.5	103.5
	10			6.8	22.4	10.6	34.9	17.3	56.8	27.2	89.1
	11			5.2	16.9	8.0	26.3	13.1	42.9	20.5	67.3
	12					7.0	22.8	11.3	37.2	17.8	58.3
	13					5.0	16.4	8.2	26.8	12.8	42.0
	14					3.8	12.5	6.2	20.3	9.7	31.9
	15					0.9	3.0	1.5	4.8	2.3	7.6

Note:

1. Please check the wire gauge of your connector in the table "Max. Running Length".

E.g.,

Single-end feed, C-FR-F22D-12W, 5m light length with 18AWG wire, max. cable length should refer to the corresponding value 23.1m for 5m light length;

Double-end feed, C-FR-F22D-12W, 10m light length with 18AWG wire, max. cable length of each end should refer to the corresponding value 23.1m for half of light length 5m;

2. The above cable lengths are calculated based on 10% allowable voltage drop maximum.